

Effectiveness of Transactional Analysis Group Therapy on Identity Styles and Self-efficacy of Female Students in the Second District of Tehran during the Academic Year of 2018-2019

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Abstract

Background: A systemic personality theory and social dynamics are given in the Transactional Analysis for behavior. The objective of this study was to investigate the effectiveness of Transactional Analysis on self-efficacy and identity styles of Iranian female students.

Methods: The present research was quasi-experimental with pretest-posttest design with a control group. The study population included all the second year of high school female students (458) in the second district of Tehran, Iran, during the academic year 2018-19. Out of them, 30 individuals were selected using purposeful sampling method. For data collection, the self-efficacy scale and identity styles questionnaire were employed. They were then assigned randomly to the two control (n=15) and experimental (n=15) groups. The experimental group received Transactional Analysis training for 10 treatment sessions (90 minutes for each session). The data were analyzed with analysis of covariance (ANCOVA) in SPSS version 23.

Results: Mean and SD of age in the Transactional Analysis and the control groups were 16.87 ± 0.834 and 17 ± 0.926 , respectively. Moreover, our findings showed that Transactional Analysis training had a significant effect on the experimental group in identity styles and self-efficacy scores (academic, social, and emotional) ($P=0.001$).

Conclusions: The result of our study showed that group psychotherapy with Transactional Analysis approach had significant effects on identity style and self-efficacy. For the assessment of organizations and their management, evaluating child growth, managing psychiatric problems at educational facilities and for social workers, Transactional Analysis were found to be useful.

Keywords: Transactional Analysis, Self-efficacy, Identity styles, Female, Students

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1. Introduction

Beginning with puberty and lasting until the middle of adolescence, adolescence is a time of fast development. Consider the age gap between a 12-year-old youngster and an adult aged 24-years. Between those two years, there are significant changes in every domain of development, including biological, neurological, psychosocial, and psychological growth (1). Adolescents have biological and psychological needs, such as the need for security, love and being loved, having new experiences, and independence (2). Meeting all these needs helps them to achieve their identity in the right way (3). Erikson also believes that identity is a tool a person can

use to interpret personal experiences and the direction of his life; if it is formed properly, at the appropriate judgment of the person, it will result in a sense of inner integrity and a good capacity to act (4). Creation of identity is one of the fundamental conditions for the formation of an accepted society in all the cultures. Additionally, Erikson believes that identity is a lifelong process that becomes increasingly important during adolescence and perceived as self-perception (4). Identity formation is a crucial part of adolescence. Adolescents are meant to be preoccupied with establishing educational and professional objectives as well as forming an image of who they are and want to be. According to previous study, having a somewhat distinct and consistent identity

makes people more resilient, contemplative, and autonomous when making significant life decisions, while also encouraging a sense of competence (4).

Verhoeven and colleagues found that identity status generally captures individual differences in identity creation, reflecting combinations of high and/or low ratings on identity exploration and commitment processes (5). During puberty, a period of transition in identity and social constellations, this power is particularly different (6). Some other studies demonstrated the extent to which students put effort into developing their identity as students (informational identity style) and their drive to improve their study abilities (action stage of change). The fraction of variance explained in students' self-regulation scores increased considerably (7,8).

Fallan and Opstad demonstrated the degree that the students invest effort in establishing their identity as students (informational identity style) and their willingness to improve their study skills (action stage of change) significantly increased the proportion of variance explained in students' self-regulation scores (8).

Students' self-efficacy beliefs have a favorable impact on academic performance and learning in school (8). According to social learning theory, a student's perceived self-efficacy is a crucial factor of achievement that functions partially and autonomously of underlying abilities (9,10). A student with a high self-efficacy for a specific subject trusts in his own ability to complete an assignment, find the correct answer, accomplish goals, and sometimes excel his peers (11, 12). Research has gained considerable support for the notion of self-efficacy (13, 14). Studies have concluded that the perceived self-efficacy of children controls their own learning behaviors by influencing their motivation, their math, science, and writing achievements, and the probability of staying in school (14). These beliefs are closely linked to students' ability to regulate their learning (8-13). In this study, the researchers aimed to promote students' self-efficacy and identity style employing Transactional Analysis ((TA).

Transactional Analysis for personal development and change is a philosophy of personality and formal psychotherapy. Transactional research is useful for organizational assessment and management, child development assessment, treatment of psychological disorders in academic institutions, and mental health workers (15). In general, TA has been used to enhance self-esteem (16, 17) and develop the characteristics and

abilities of potential psychologists (18). In addition, nurses in psychiatric hospitals have been commonly employed in Ego states (19). While TA is one of the most efficient psychological theories, in the transformative course of adolescence, the researchers did not consider it much, particularly its impact on identity styles and self-efficacy. The present study was conducted to fill this gap. TA strategies were designed to encourage independence and self-direction using one's adult experience, self-motivation, and tools to solve problems (20). While the efficacy of TA training on identity types could not be identified in this research, the effectiveness of TA training on self-efficacy was confirmed. According to the International Transactional Analysis Group, the Transactional Analysis is a philosophy of personality and systemic psychotherapy for personal development and transformation (20). On the other hand, a study of research on identity and self-efficacy styles indicated that little research has been conducted on the impact of training on the student's self-efficacy and identity styles whereas we need to take into account their relevance and role in the development of the personality of adolescents and future education and career. For educators, administrators, and individuals interested in education, it could be useful. Regarding the self-efficacy and identity styles of female learners, we tried to teach them Transactional Analysis training. The present study discussed the following hypotheses on the basis of this objective:

Hypothesis 1: Transactional Analysis training is effective on the identity styles of female high school students.

Hypothesis 2: Transactional Analysis training is effective on the self-efficacy of female high school students.

2. Method

2-1 Study Design and Population

The present study utilized a semi pretest-posttest methodology with a control group. The population for the academic year 2018-19 comprised all secondary schools in Tehran's second district. In this study, purposeful sampling process was applied. Primarily, three schools were randomly selected from the secondary schools of region two in Tehran, in the second grade.

Three classes were chosen from each school in the form of Lottery and among 458 students, 30 students with low self-efficacy were randomly selected and assigned in the experimental (n=15) and control (n=15) groups. Based on the present study design, we used the below formula to calculate the sample size (21):

$$n = \frac{(z_{1-\frac{\alpha}{2}} + z_{1-\beta})^2(\sigma_1^2 + \sigma_2^2)}{(M_1 - M_2)^2}$$

with a test power of 0.80, alpha=0.05, $M_1 - M_2 = 8$, and $\sigma_1^2 + \sigma_2^2 = 60$, it should be noted that in order to prevent loss of samples, we selected 15 students for each group.

Analysis sessions in Table 1 (22) were allocated to the experimental group as 90-minute sessions for 10 days while no intervention was received by the control group. At the time of the exercise, the procedure was carried out by the first author at the school. Ethical approval was received from Research Deputy of Azad University of Tehran Research Committee (IR. AZUT. REC.98.5567876). All the participants obtained oral and written information regarding the goals of the work. They were made clear that their engagement was voluntary and all the data will remain confidential. Cards or envelopes shuffling method was used for random allocation. In this method, a number of cards or letters were selected by the researcher as the first group; the same number of cards were considered for the next groups. Subsequently, by merging the cards together (cutting the cards), a card was taken out and its allocation was recorded. That card was returned to all the other cards after being taken out. Afterwards, the cards were merged again and another card was taken out. This

process continued until a random sequence was reached according to the sample size.

2.2 Selection and Description of the Participants

In the present study, among three schools in the district two of south of Tehran, one of them was randomly selected after obtaining the consent of the school authorities and informing the students about the implementation of the research plan. Considering the inclusion and exclusion criteria, 30 out of 458 girl students in three levels of education at high school were purposefully selected. In addition, the students were split into three groups: experimental (n=15) and control (n=15). The form of informed consent was assigned by the participants prior to conducting the research. Entrance requirements included not having physical or psychological disorder, self-efficacy of a standard deviation below the norm and confused style of identity, not receiving care, and not having co-education plans during the training course. In the training sessions, the exclusion requirements included more than two absences and not completing conscious consent or the questionnaires.

Transactional Analysis (22) group was then trained through 10 sessions of 90 minutes once a week. The control group was not given any trainings. After all the meeting sessions were implemented, the two groups were tested in the same conditions. In order to observe the ethical principles in the study for the control group, after the post-test implementation of the experimental group, the training sessions were also considered for the control group.

Table 1: Transactional analysis group therapy program

Session one: Welcoming and getting to know each other, introduction and familiarity with the basic concepts, goal statement, talking about group principles, rules, motivation, commitment, expectations, and tasks, the need for a purpose in life, goal setting, smart targeting (specific, measurable, achievable, realistic, and timed)
Session two: Introduction, acceptance, and incorporation of the collective behavior analysis theory of Bern.
Session three: The definition of "I" modes and their division with the examples presented. Ago gram education and its overview to allow people to introduce themselves through the use of collective behavior analysis
Session four: Teaching two important topics of the philosophy of behavioral analysis, like okay and life modes, including I'm not OK, but you're not OK, I'm not okay, you're not OK, I'm okay, you're OK
Session five: Introduction of caress
Session six: Adding caress mascots from Steiner's perspective
Session seven: Presentation of various types of diseases with a view over the collective behavioral study of Bern
Session eight: Describing the forms of relationships, such as complementary, overlap, and dynamic relationships in the study of reciprocal behavior
Session nine: Introduction of barriers and drivers (do not do that, do not act like a child) (try it)
Session ten: Working on the definition of change, features of behavior modification, and goals of change for reciprocal behavior analysis involving consciousness, self-motivation, and friendship

2.3 Technical Information

Identity Styles Questionnaire: Identity styles questionnaire was developed by Berzonsky (23) to measure the cognitive social processes that adolescents use dealing with identity issues. This questionnaire comprises 40 questions with four components: «information identity with questions 37, 35, 33, 30, 26, 25, 18, 16, 6, 5, 2», «normative identity with questions 40, 34, 32, 28, 23» 21, 19, 10, 4 «, «confused or avoidant identity with questions 38, 36, 31, 29, 27, 24, 17, 13, 8, 3 «, and «identity commitment with questions 7, 1, 9, 12 Measures 11, 15, 14, 39, 22, 20». The commitment scale is not an identity style, but it is used for secondary analysis. On a five-point Likert scale (strongly disagree =1, disagree =2, slightly agree =3, agree =4, strongly agree =5) items are graded (23). Question 9, 11, 14, and 20 are graded in reverse order: absolutely disagree =5, partly agree =3, agree =2, and strongly agree =1. The informative style's minimum and maximum scores are 11 and 55, respectively, while the normative style's minimum and maximum scores are 9 and 45, and the confusing-avoidance style's minimum and maximum scores are 10 and 50. Test-retest reliabilities for the subscales range from 0.71 to 0.75, according to the data. In this investigation, internal reliabilities were 0.68 to 0.73. (24). Cronbach's alpha was found to be in the range of 0.69 to 0.76 in the Iranian population, with test-retest reliability of 0.52 to 0.71 (25). The Adolescent Self-Efficacy Scale: The SEQ-C had 24 items that were grouped into three self-efficacy areas: (1) Social self-efficacy (eight items), which refers to one's perception of one's capacity to form and maintain peer connections. (2) Academic self-efficacy (eight examples), which refers to one's belief in one's capacity to control one's learning behavior. (3) Emotional self-efficacy (eight examples), which is concerned with one's ability to deal with negative emotions. Each item must be assessed on a scale of one to five, with one being the worst and five being the best. Muris reported the reliability of this tool using Cronbach's alpha coefficient of total, academic, social, and emotional self-efficacy to be 0.88, 0.85, 0.88, and 0.86, respectively (26). In the research by Hosseinchari and Fadakar (27), the reliability of Cronbach's alpha method for self-efficacy dimensions was reported to be 0.70, 0.69, and 0.74, respectively.

2.4 Statistics

The following assumptions were appropriate for this analysis: in addition to descriptive analysis, we measured data normality for variable distributions, variance error homogeneity. The assumptions were tested using the Kolmogorov Smirnov, Levine, and M box studies. It should be noted that all the data analyses were carried out with SPSS version 23.

3. Results

The population for the academic year 2018-19 comprised all secondary schools in Tehran's second district. The inclusion criteria related to demographic variables were age between 14 and 17 years old and female gender, as well as having poor self-efficacy ratings; and the exclusion criteria were dissatisfaction to participate in the study. In the present study, the Mean \pm SD of the groups were equal to 16.93 ± 0.884 ; Transactional Analysis training (16.87 ± 0.834) and the control group with (17 ± 0.926) are respectively represented.

Table 2: Description and comparison of the groups in terms of demographic variables

Group	Educational level	N	0/0	Chi-square (χ^2)	P
Experimental	10th	6	40	0.9	0.925
	11th	4	26.7		
	12th	5	33.3		
Control	10th	6	40		
	11th	3	20		
	12th	6	40		

Table 2 shows that there were no significant differences between the groups. To analyze the question, we utilized a multivariate analysis of covariance (ANCOVA). Before examining the research hypothesis, primarily, the assumptions of this statistical method, including the Kolmogorov Smirnov, Levin, and Box were examined.

Table 3 demonstrates a comparison of the pre-test and post-test averages of the factors analyzed in the study.

It is important to determine the form of distribution of the variables in terms of their normal distribution in order to choose the required statistical tests to evaluate the collected data in Table 4. For both variables, the significance level of the above test was higher than 0.05.

Table3: Descriptive statistics of before and after in each Group

Variables	Sub-scales	Pre test	Post test	P	
Identity style	Control	Information style	25.93±3.348	33.33±3.579	0.345
	Experimental	Information style	37.4±3.6	43.33±3.28	
	Between group comparison P value		0.001	0.001	
	Control	Confused-avoidant style	27.87±3.204	34.67±1.345	0.547
	Experimental	Confused-avoidant style	26.2±3.82	18.86±3.13	
	Between group comparison P value		0.001	0.001	
	Control	Normative style	27.27±3.390	33.60±2.501	0.569
	Experimental	Normative style	28.26±4.71	38.86±6.80	
	Between group comparison P value		0.001	0.001	
Self-efficacy	Control	Academic self-efficacy	28.53±3.461	26.60±1.639	0.784
	Experimental	Academic self-efficacy	39.26±5.04	37.06±3.49	
	Between group comparison P value		0.046	0.001	
	Control	Social self-efficacy	28.13±3.137	26.93±2.463	0.889
	Experimental	Social self-efficacy	25.20±3.16	32.93±6.67	
	Between group comparison P value		0.820	0.001	
	Control	Emotional self-efficacy	30.13±3.091	28.20±2.541	0.895
	Experimental	Emotional self-efficacy	27.53±8.18	25.40±4.43	
	Between group comparison P value		0.022	0.001	

The distribution of the scores of the variables was therefore normal.

According to the results in Table 4, when the pre-test effect was eliminated from the post-test data, the difference between the two groups was significant at 95% confidence level for information identity style, confusion-avoidance, and normative. As a result, the research's first hypothesis was verified. Hence, Transactional Analysis training courses may have an impact on high school girls' identities.

According to the data in Table 4, there was a significant difference in the scores of identity styles

between the Transactional Analysis training and the control (P=0.001). The difference in scores between the two groups revealed that reality therapy education has an impact on female high school students' identities.

As shown in Table 4, when 95 percent of the pre-test impact was eliminated from the post-test data, the difference between the two groups was significant in academic, social, and emotional self-efficacy. As a result, the study's second hypothesis was also verified, and it can be concluded that Transactional Analysis training improves the self-efficacy of female high school students.

Table 4: Kolmogorov-Smirnov test to investigate the normal distribution of the values of variables

Group	Variables	Transactional Analysis Training		Control	
		Kolmogorov Smirnov	P	Kolmogorov Smirnov	P
Pre-test	Information style	0.90	0.388	1.02	0.240
	Confused-avoidant style	0.72	0.667	1.06	0.207
	Normative style	0.71	0.679	0.85	0.454
Post-test	Information style	0.58	0.884	0.73	0.654
	Confused-avoidant style	0.65	0.789	0.77	0.584
	Normative style	0.60	0.859	0.72	0.671
Pre-test	Academic self-efficacy	0.93	0.347	1.21	0.106
	Social self-efficacy	0.58	0.888	0.71	0.693
	Emotional self-efficacy	0.64	0.805	0.73	0.654
Post-test	Academic self-efficacy	0.78	0.562	0.94	0.339
	Social self-efficacy	0.78	0.572	0.59	0.877
	Emotional self-efficacy	0.69	0.724	0.78	0.573

4. Discussion

The objective of the current research was to investigate the effectiveness of Transactional Analysis training on therapy on self-efficacy and identity styles of female students. The findings indicated that the Transactional Analysis group therapy had a positive effect on improving identity styles and increasing the students' self-efficacy.

As a result, Transactional Analysis training courses may have an influence on the identities of high school females. The difference in scores suggested that reality therapy education had an influence on the identities of female high school pupils. In terms of intellectual, social, and emotional self-efficacy, there was a considerable difference between the two groups. Thus, the obtained findings herein are aligned with these studies (16, 21, 28, 29, 30, 31). It is clear that the efficacy of the transactional analysis group therapy on identity types has not been established. Possible explanations for this effect include the following:

Throughout life, knowledge of one's nature is a great event. It can be a fascinating process to explore a new and secure life for individuals. The study of interactions and actions with broad and very efficient use of self-transformation could be said to be an appropriate way to help people know themselves better without using complicated words and addressing the question «Who am I?» (32, 33). It also allows individuals to make complementary and calming ties utilizing their adult selves. In our study, after participating in group therapy and interacting with other group members, customers discovered a new attitude towards their own behavior and emotions and that attitude influenced their self-conception (33).

The positive value of these changes in self-conception has been shown because this conception plays a significant role in personal and social adaptation and in educational and career choices. Group therapy with symbolic games and yoga could promote the sentimental relationships of individuals, particularly those experiencing stressful conditions. As a result of a change in attitude toward «I'm ok, you're ok», and the use of effective communication agreements, individuals can achieve better communication and management skills (34).

The results of this study revealed that interaction behavior analysis training is effective on the self-efficacy

of female high school students. Our results are consistent with these studies (21, 31, 32).

It should be acknowledged that according to Bandura's (1997) theory, self-efficacy is formed under the influence of various sources in an individual (35); these sources are related to communication patterns. Thus, the analysis of interaction behavior can achieve self-efficacy since this method increases the ability to classify behaviors, moods, thoughts, and feelings, which helps a person learn to distinguish his or her «parent» messages from those of a «child» and to use them as an «adult» here and now.

Therefore, despite the fluctuations of adolescence, with the help of interaction behavior analysis, adolescents would be able to refer to the skills learned in potentially conflicting situations with their adult supervision, provide the conditions for establishing constructive relationships, and explain the three-part pattern of personality. Based on previous research, self-efficacy seems to be necessary for the effectiveness of counselors and through education, this trait can be improved among individuals. This seems particularly important for school counselors; considering their attendants, they should be specialists in the use of cognitive, emotional, and behavioral intervention techniques (21).

It is noteworthy that this study faced certain limitations. In order to test student research variables, the current study used self-reporting methods that intensify the issue of individual bias. This research was also performed on female learners and could not be extended to male learners. Another downside of the analysis was the lack of follow-up; generalization of our results to other populations should be done cautiously.

5. Conclusion

Evaluating the role of group therapy with Transactional Analysis approach in identity style is a new topic that has not yet been fully studied. It is critical to demonstrate the impact of group therapy with a TA method on identity style since this identifies the intermediate component responsible for growing identity style. However, given the limitations of our study of follow-up time and a number of individuals, more research is needed to demonstrate such an effect. Therefore, to make effective interactions, increase responsible behavior and commitment, reduce behavioral impairments, and prevent any mental disorders,

counselors and officials should implement this treatment approach through group therapy with careful and continuous planning. Transactional Analysis education was found to have a positive effect on the identity styles and self-efficacy of female high school students. Therefore, psychological group therapy could be suggested to increase self-efficacy and improve identity style and thus reduce behavioral and social damages.

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